

CIV. *An Account of the Eclipse of the Sun,
October 16, 1762, in a Letter from Mr.
Samuel Dunn, to Mr. James Short, M. A.
and F. R. S.*

S I R,

Read Dec. 16,
1762.

ALTHO' the morning promised so favourable for seeing the Solar Eclipse of this day, the dark still clouds which were near the horison, and extended to a considerable altitude, prevented almost all observation. Saturday noon October 16th, I set a pendulum clock to solar time by the Sun's transit over the meridian, and so it went on till Sunday noon 17th, when it had got 8'' of solar time, from which I conclude the clock was 6'' too fast for solar or true time at the time of the eclipse. At 7^h 14' 24'' per clock I first saw the upper part of the Sun thro' a Gregorian reflector magnifying 55 times, the upper Eastern limb of the Sun appearing eclipsed and the limb of the Sun in a state of undulation, but the limb of the Moon more so, with the irregularities of the lunar mountains sometimes well defined between the fits of vibration. At 7^h 30' per clock I applyed a six foot Newtonian reflector with its magnifying power 110 inverting the object in order to observe the contact of the Moon's limb to one of the solar spots, and at 7^h 36' 56'' the specked penumbra which surrounded a pretty large spot on the upper inverted part of the Sun was touched by the Moon's limb, the body of this spot being yet

yet untouched, and the Moon's dark limb approaching towards it. At $7^h 37' 48''$ per clock it was got so near the contact that I was going to pronounce it, but seeing the light between the Moon's limb and the edge of this spot diminish gradually till $7^h 37' 54''$ per clock, I concluded this last to be the time of contact with the edge of this spot. At $7^h 38' 17''$ per clock this spot was centrally bisected by the line of the Moon's dark limb, and at $7^h 38' 40''$ per clock the edge of the spot and its surface was covered, a few seconds of time after which, the little indistinctness near its edge was quite vanished and gone.

Whilst this observation was making, the sky was clear and the limbs of the Sun and Moon were free from undulation, and all other impediment, except the aforesaid little teeth-like unevennesses in the Moon's limb. And what is remarkable, altho' the three last mentioned numbers were set down exactly as taken on the spot, they differ not from each other a second of time. Nevertheless this opportunity has confirmed me in an opinion which I had entertained concerning the internal contact of Venus with the Sun's limb 6th June 1761, for I conclude that the contact of this spot with the Moon's limb could not have been judged of by different observers in the same place, and with equal telescopes without a difference of at least 5 seconds of time, which is much more considerable than the same number of seconds in the contact of Venus with the sun's limb, the former being so swift and the latter so slow.

I have not allowed the $6''$ which the clock was before true time at the time of observation, nor reduced the Phænomenon to Greenwich or any other meridian,

meridian, to leave the observation in its original form, such reduction being easily made.

I am, Sir,

Your very humble, and

obedient servant,

Samuel Dunn.

Chelsea, Oct. 17, 1762. Lat. $51^{\circ} 29' 5''$ Long. $41''$ time W. of Greenwich,

CV. *Extract of a Letter from W. Watfon, M. D. F. R. S. to John Huxham, M. D. F. R. S. containing some Remarks upon the Catarrhal Disorder, which was very frequent at London and in its Neighbourhood in May 1762. and upon the Dysentery, which prevailed the following Autumn.*

London 9th Dec. 1762.

Read Dec. 23, 1762. **I**N the beginning of May, there was at London and in its neighbourhood a disease, very epidemic, though not fatal, which had sometime before been very prevalent both in Italy and Germany. It continued during the course of the month, and some part of June. In it the breast was very much affected, and it was very frequently attended with a fever. It is nearly the same disease which was at London in April and May 1743, and